

plants. Lake Washington and the waters of this slough were lowered seven feet in 1916 at the time of the opening of the ship canal, and the growth of this plant in this place had evidently been more extensive before the lowering of the water level.

Specimens were collected at this place by the writer in August, 1929, and these have been identified at the U. S. National Herbarium, the Missouri Botanical Garden, the New York Botanical Garden, and the Field Museum of Natural History. A specimen has been deposited at each of these places and also in the herbarium at the Museum of the University of Washington. It was found that there was already a specimen in this herbarium collected at "Lake Washington" October, 1916, by Mr. Kahan.

Correspondence and consultation with other botanists has brought out the fact that it has been collected at two other places in western Washington (Ilwaco, 1885, and Lake Ozette, 1927) and at four places in western Oregon (Sauvies Island, 1877; Blind Slough, Clatsop County, 1903; Brooks, Marion County, 1922; Lake Labish, 40 miles south of Portland, 1929).

Mr. W. N. Suksdorf, of Bingen, Washington, who has collected plants in the state for more than forty years, writes that he has never collected this species west of the Cascades. He states that the plant formerly occurred at Bingen but disappeared years ago as the land was brought into cultivation, and that he knows of only one place (8 miles west of Bingen) where it is abundant now.

Mr. J. B. Flett, who has also collected in Washington for many years, writes that he has never seen this species in western Washington.

The experience of these two botanists and of the other botanists who have kindly contributed information confirms the experience of the writer and indicates that this reed has played a much smaller part in the development of plant communities in western Washington and Oregon than it has in many other parts of North America.—  
GEORGE B. RIGG, University of Washington, Seattle.

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PLANTAGO ARENARIA W. & K. AT PORTLAND, MAINE.—In September 1929, the writer found a single plant, about two feet tall, of *Plantago arenaria* growing on an extension of Hersey Street in Portland. In the spring this part of the street had been filled with material

scraped from other streets nearby, though it was not possible to learn more definitely of the places from which the material had been taken. A hundred and more feet away from the plant, a gulley was being filled with discarded packing cases, automobiles and other matter; no plants were seen in that section.

The plant mentioned was flowering abundantly and producing seed.

In the season of 1930, about a dozen of the plants reached maturity within an eight-foot circle of the original plant, but none were found farther away. These flowered profusely and bore seed.

This plant seems to require a long season, not flowering until late summer or early fall. On November 15 it was observed that many seeds had matured, yet many capsules contained unripe seeds, and the fleshy leaves had been withered by the freezing nights of the first week of the month. The large, shining dark brown seeds (two in number) would seem likely to offer choice morsels to seed-eating birds.

The success or failure of this pioneer, in its attempt to establish itself in this region will be watched with interest for the next few years.—ARTHUR H. NORTON, Portland Society of Natural History.

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## THE GENUS *GEUM* IN THE ATHABASCA-GREAT SLAVE LAKE REGION<sup>1</sup>

HUGH M. RAUP

RECENT botanical surveys in the Athabasca-Great Slave Lake district have yielded a number of specimens of *Geum* which are not determined easily, and which seem to warrant a somewhat critical examination of the genus as it is there represented. The writer's collections may be divided into three groups, the two smaller of which are clearly *G. strictum* Ait. and *G. triflorum* Pursh. The largest group, involving 18 numbers and 58 sheets, is equally well-defined, but consists of plants with their upper stem-leaves considerably reduced and their basal leaves supplied with a large, ovate to cordate terminal leaflet after the manner of *G. macrophyllum*. Further characteristics of these plants are pale yellow obovate petals, receptacles loosely covered with very short hairs but not covered so as to obscure the rather elongated pits, the lower internodes of the styles loosely supplied with

<sup>1</sup> Published by permission of the Director of the National Museum of Canada, and during the writer's tenure of a National Research Fellowship in the Biological Sciences.